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ABSTRACT

An analysis of English intonation focuses on fall-rise and rise-fall instruction. Fall-rise intonation marks material from which the speaker would derive a precondition for what he is saying, while rise-fall intonation marks material from which the speaker would derive a consequence from what he is saying based on inversion of the clause where the rise-fall appears. Data are drawn from a covertly recorded telephone conversation between two males about a series of mishaps suffered by a woman driving a car. In addition to the main finding that both certain implicatures and certain explicatures can be derived from fall-rise tones, it was also found that back-channel utterances by the listener were significantly related to the speaker's intention as interpreted by the listener through intonation, and that a sexist stance on the speaker's part was conveyed through intonation. A transcription of the pertinent conversation, with explicatures noted, is appended. (Contains 10 references.) (MSE)

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ENGLISH INTONATION AND RELEVANCE THEORY Michael Pickering (1995)

"The richness of implicative intonations is considerable, but their rigorous analysis is a delicate matter, and we shall not broach this topic here." Bernard Tranel *The Sounds of French* CUP 1987.

Introduction

The approach in this paper is predicated on what I call a "naturalistic assumption" about language. So far as this report is concerned, the naturalistic assumption means that, yes, our expectations about the way that words (*types*) can be used *are* usually fixed, and that it is just context, in the widest sense, that introduces a kind of turbulence which makes it generally impossible to predict exactly what the *token* of a given word will mean. I also believe that even though there is clear self-similarity in the phonological and syntactic conditions that apply to words and sentences, and that not only sentences, but also words could be infinitely long in principle, this is a property of *types*, not *tokens*. I think that almost everybody else thinks like this too, only they might put it differently. I might also add that the *reference* of words is infinite in principle too, since the set of referents ampliates into the past and the future and all possible worlds. But not of course in fact, because words dis/re/appear and/or change their sense.

My interest in intonation is of long standing, but until recently I had abandoned further research in the area. It seemed then that no approach had been found which could either stand up to empirical procedures of verification, or was even internally coherent. Descriptions are endless and many are subtle, but despite most people's intuitive conviction that intonation in English "means" something, nobody had been able to determine what it does "mean". There has been around in Finland for some time a sort of urban legend that "English-Finnish marriages break up on the basis of intonation" and this legend is not all smoke, either: the grain of fire in it is not that Finnish women are dangerous things, but that crucial information *is* carried by the tonal movements and levels of English and that Finnish speakers regularly fail to pick it up. It may also be true the other way round, but evidence of that seems to be lacking at present.

In her excellent book "An Introduction to English Prosody" Elizabeth Couper-Kuhlen (1986) surveyed research (pp 110-207) on intonation in English up to that time, and like David Crystal before her (1969, pp 296, 307), was unable to reach any optimistic conclusions about our knowledge of its function, i.e. its "meaning". By 1986, speech act theory had already (Liberman/Sag, 1974) been used in the study of intonation, but, as Couper-Kuhlen points out, with results which are no less limited than results obtained in frameworks used earlier. This is a singularly irritating situation, more particularly because by 1975 David Brazil had arrived at some extremely interesting insights into British English intonation which he formalised on the basis of interactive discourse analysis. I was impressed as were many others with Brazil's approach, but in retrospect, it appears that the difficult in verifying his theory with strictly empirical procedures and on a more general variety of discourses derives, as perhaps in most other cases, not from the insights, which still seem very perceptive, but from the framework. There is, however, as I will indicate in the final section, another kind of difficulty, besides the

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adoption of a suitable framework.

Intonation and Relevance Theory

So far as I know, the present study of English intonation is the first within a framework related to relevance theory (Sperber and Wilson, 1986). Precisely how I arrived at the insight on which the study is based is now unclear to me, but two points must be made. One is that I owe to Brazil the insight that fall-rise intonation is related to given information. This proves not to be verifiable in his framework, or perhaps in any framework which takes "given" and "new" to be ideas to which a speaker or analyst has direct access through common sense. The sense in which I have taken them can be described as follows: Fall-rise intonation marks material *from which the speaker would derive a precondition* for what he is saying - *and which* ***may or may not be*** *retrievable from earlier expressed material within discourse.* Rise-fall intonation *marks material from which the speaker would derive a consequence* from what he is saying- *this is* ***not*** *retrievable from previous discourse, but by inversion of the clause where the rise-fall appears.* The point in mentioning retrievability here is that a main problem with the empirical verification of Brazil's hypothesis is that sometimes information marked by fall-rise tone is not retrievable from explicit material, so that we may have to assumed ad hoc that the speaker is treating it *as if* it were retrievable.

Material

The material which I have analysed is part of a surreptitiously recorded conversation between two males. In the analysed stretch, one male tells a story about a series of mishaps suffered by a female driver of a car. Thus the material is narrative and monologic. There are also a few back-channel utterances by the listener, and I can show that these are significantly related to the speaker's intention as interpreted (in part) through intonation. Moreover, the story appears to convey a somewhat sexist stance on the part of the speaker, and it is possible to show that intonation helps to convey this stance (while maintaining the stance, as Brown and Levinson (1987) would say, "off-record"). These secondary conclusions, about back-channel and sexist attitude, are a bonus result, and do not count as evidence for the hypothesis. A transcription of the material with inserted explicatures is to be found as an appendix to this article.

Hypotheses and Verification

Verification of such a hypothesis has to be tightly controlled. Initially I was very unclear how this would be done, but in time I discovered that the meaning of the tones (which are treated here as just two tones, rise(+)fall and fall(+)rise) is *not*, as I initially assumed, simply that certain *implicatures* will be derived, but that certain *explicatures* will be derived. The difference between explicatures and implicatures, as defined by Blakemore (1992), is that an implicature is an "assumption[s] derived from the proposition that the hearer takes the speaker to have expressed together with the context" (p 81). An explicature is an "assumption ... obtained by fleshing-out a linguistically encoded semantic representation, in other words, by filling in the blueprint delivered by the grammar" (p 59). Wilson and Sperber (1986) defined

implicature as an implicitly communicated assumption and explicature as an explicitly communicated assumption. In fact, both require context, but explicature requires less context than implicature does, so is more constrained. (A sort of paradox appears to emerge from my claim that intonation marks explicatures. Only elements of discourse which have logical form can have explicatures. Hence, intonation, which has no logical form, has no explicatures. But my point is not that intonation *has* either im- or ex-plicature, but that it *signals* the presence of explicatures of either one type or the other, *either preconditions or consequences.*)[1]

There is evidence that the importance of cause (or precondition) and consequence has been noticed before. For example, Norman Fairclough (1989 p 131) writes: "causal or consequential relationships between things which are taken to be commonsensical may be ideological common sense. Such relationships are not always cued by connectors; they can be implied by the mere juxtaposition of sentences." The "mere juxtaposition" he refers to indicates that an explicature or implicature will be formed. Why should this intended not also be signalled less ambiguously, by intonation? Quite incidentally to another point she is making, Couper-Kuhlen (1986 p 166) cites an example from Sag and Liberman (1975 pp 488, 494):
a) Max: You know, Henry, the climate here is really bad for you. I've got a suggestion -

Why don't you move to California?

b) Max: Henry, I'm curious -

Why don't you move to California?
Is it because you don't want to leave all your friends in Boston?

Couper-Kuhlen goes on to point out that Sag and Liberman's claim about these contours, which is quite different from mine, has been criticized by Cutler (1977 p 109). In fact, these examples fit my explication very well. I claim that the different in contour here has nothing to do with questioning. Example a) has rise-fall because it signals a so-implicature: "the climate here is bad for you, SO you should move to California. On the other hand, b) has a fall-rise because it signals a because-implicature: "you don't move to California BECAUSE you don't want to leave your friends in Boston". Although in the present article I have suggested that a mere *explicature* suffices for both cases, the above point holds as a generalization.

The explication of precondition or consequence needs of course to be operationalised. This I have done, as already noted, by requiring that a precondition be a clause beginning with *because* and a consequence a clause beginning with *so* (or *therefore*). The use of *so* merely indicates that the explicature is derived as a logical equivalence of the clause where rise-fall appears. The use of *because* indicates that a precondition is inferrable from the preceding and current material, together possibly with succeeding material in those cases where the speaker is anticipating what he will say - in such cases, the explicature is a "speaker's explicature" and may well not also be a "hearer's explicature". The essential control is that *when the sequence of tonal movements is* ***first***

rise *and* ***then*** *fall, the explicature will be formulable as a* ***consequence*** *of the current proposition.* For example:

(1) She slapped on the br´akes and loo'ked arou[illegible] frantically
Explicature: she looked around frantically after [illegible]e had slapped on the brakes.

The explicature is logically equivalent to the original clause but has a different rhetorical structure, since clause sequence is inverted and the sequential relationship has to be made explicit by introducing "after". I assume that this clause corresponds to a rhetorical structure which the speaker signals indirectly through intonation and which does not change the proposition, nor, therefore, its meaning. What is changed, potentially, *is the* ***cohesion*** *of the discourse.* Through this change in cohesion, certain meanings at discourse level may be signalled by what can be termed *a change of* ***emphasis.***

An attempt to fit a because-explicature after a clause marked by rise-fall usually fails: only so-explicatures fit properly. An attempt to fit a so-explicature after a clause marked by fall-rise does *not* usually fail. But if the so-explicature is liberated to include not only structural inversions of the clause but other explicatures which parallel the because-explicatures in being derived partly from the cotext, these usually fail to fit. These two complementary tests are based on NS intuition, but within this domain, they are convincing. The reason why the structure inversion test does not work for fall-rise clauses is just that it is formal. It introduces cohesion but does not affect coherence. The because-test applied to rise-fall clauses works because it is substantive and affects coherence.

The actual because- or liberated so-explicature which we derive is not predetermined, but unless there is perversity or pragmatic failure on the part of the speaker, the procedure can be tested by attempting to exchange the hypothesised correspondences. Thus, if fall-rise gives a so-explicature and rise-fall gives a because-explicature on any reasonably derived explication, then my hypothesis is to that extent disconfirmed. In fact there are a negligible number of places in the story where the exchange is possible, and fewer still if we take into account some possible ambiguities in either the assignment of sequence to the falls and rises or in the assignment of falls and rises to particular places in the discourse. It must be added moreover that, on the definitions of explicature given above, it is possible that all of the inferences I have used in the tests are explicatures. If they are not, then they are implicatures, but they are still constrained by cotext: with hardly any exceptions they do not require knowledge which cannot be confirmed in relation to the current discourse and from other utterances of the same speaker.

The actual interpretation of the discourse by a given listener, whether the original listener, the analyst, or any "overhearer" of the recording, is dependent on much else of course besides the intonation, and is contingent on the listener's assumptions as well as the speaker's. In particular, the earlier version of the explicatures which I prepared was contaminated quite heavily by implicatures which were, indeed, mostly derived from the discourse, and especially from the framing carried out in the intial utterances, where the voyeurism of the witness is defined by the semi-detached house setting, and the sexism of the witness by the frame, part intonational and part adverbially derived

(*w ˈi ˈf e* and *ˈu n w i ˈ s e l y*). A further constrained possibility of interpretation arises for the analyst where the original listener provides back-channel responses, or else where the speaker uses a so-called sociocentric formula. These occur at just those points where the most accessible explicature appears to be actually stated by the speaker in a further utterance, or else appears to be self-evident to a high degree:

(2) [she] began to back very very gently taking gr´eat caˈre you see that she didn't do anything to this new car.
(Explicature: *so that* the care was great which she was taking by very very gently backing...)

"you see" indicates that "great care" is implicit in "very very gently"

(3) and this man allowed his wˈi´fe to drive the car
(Explicature: so that his wife was allowed by this man to drive the car)
very ˈunwi´sely
(Explicature: because she was having a first go in it)
and she was having a first gˈo in it
<Back-channel: ˈm>
and . he - bˈacked it out of the gˈ´arage

The back-channel "ˈm" which with a fall appears to mean "I'm with you" can indicate here that there is uptake of the because-explicature. On one hearing of the tones, this "m" means that "she was having a first go in it" is a *statement* of the because-explicature required for very unwˈisely´". Since there is no sociocentric "you see", the hearer provides an "m" which means that he recognises that the explicature has been made explicit by the speaker. But if this (that the man was unwise to let his wife have her first go at driving in his new car) was the speaker's *intended* explicature, then his attitude is less sexist than it would be otherwise (if, as seems likely, he meant that the man was unwise to let his wife drive the car at all), at this point in the discourse. The mutual playfulness of storytelling may allow attitudes to be formed collaboratively, so we can suppose that the listener is opting for the less sexist interpretation. However, the speaker hesitates twice immediately after this, evidently signalling a change of strategy, and perhaps moving away from the sexist intention.

The "soft underbelly" of intonation analysis

It must be admitted that the analysis of tones has a soft underbelly. Although I used a competent assistant in determining the tones, we did not always agree about what tone to assign, and where. Even more strikingly, I disagreed with the transcribed tone assignment in Crystal and Davy's published textbook in 33 places of the text studied. There are good reasons why the auditory assignment of tone should be problematic. The chief of these is that there are distinct pitch level changes, which may or may not coincide with rising or falling tone. Another possible, though still hypothetical, source of error has been described by David House (Tonal Perception in Speech, 1990) who proposes that sensitivity to pitch changes is weak where the signal is complex, which means primarily where there are spectral discontinuities due to the presence of consonants. A third source of problems is that native speakers may make inferences

which condition their perception of the speaker's pitch contour, rather than the reverse situation which we hypothesise, where the pitch contour signals the intended inference. These varied error sources indicate, incidentally, that it is very dubious to use for research on intonation pragmatics a text coded by unknown coders, such as the London-Lund Corpus of Conversational English, which moreover is not available as an audeo recording for checking. However, it must be acknowledged that the test procedure I have used is robust enough to survive empirically under quite different assignments of tones, and under different hearings of the narrative.

Conclusion

Not only reasons of space, but also the possibility that an exposition of theoretical grounds for accepting the results presented may be a little premature, leads me to omit a discussion of the non-empirical justification for the relationship between the English tones and the two types of explicature which I have described. I believe that the general theoretical grounds on which the empirical results can be explained are very strong and I shall discuss them in a forthcoming paper. A more immediate concern however is to examine some other text types in the same framework, in order to determine whether, or how far, the present results represent general constraints on the function of English intonation contours.

APPENDIX

EXTRACT FROM "A DRIVING INCIDENT"Original recording from Crystal and Davy, *Advanced Conversational English*, Longman, 1975

1. Yes I rem'ember there was a terrible st´'ory h´'orrifying story 1.1 (SO A STORY WHICH WAS TERRIBLE, A HORRIFYING STORY WHICH WAS [ALSO] A TERRIBLE STORY) 2. that was told by a c'olleague of m'ine when I used to teach y'ears ago. This chap lived in a semi-detached h´ouse and next d´'oor 2.1 (SO THAT THE [NEIGHBOUR'S] DOOR WAS VERY NEAR) 3. there was a m´an who'd just bought a new c'ar 3.1 (SO THE NEW CAR HAD BEEN BOUGHT BY A MAN) 4. and he was telling me that one m´orning he was looking through the w'indow 4.1 (SO THROUGH THE WINDOW HE SAW [NOTE: SEEING IS A CONSEQUENCE OF LOOKING] ONE MORNING) 5. and this man allowed his w´'ife to drive the car 5.1 (SO THAT THE [MAN'S] WIFE WAS ALLOWED BY THE MAN TO DRIVE THE CAR) 6. very 'unw´isely 6.1 (ALTHOUGH IT WAS UNWISE IN TRUTH [OR: INDEED] [OF THIS MAN TO ALLOW HIS WIFE TO DRIVE THE CAR]) and she was having a first g'o in it <'m > and he backed it out of the g'´arage 7.1 (BECAUSE THE GARAGE, WHERE THE CAR WAS, IMPL E.G. NOT A PLACE TO DRIVE DIRECTLY OUT OF INTO THE ROAD) 8. so that it was standing on the dr'iveway and he'd closed the garage d´oors 8.1 (BECAUSE IMPL E.G. THE CAR WAS GOING TO BE TAKEN OUT) < y´eah > [Note: the hearer can't find the implicature here, but the rest of the story shows that the speaker may have had in mind an implicature which can only be derived from the later part of the narrative. If this strategy is signalled, it creates suspense, but if the hearer is unaware of it, it produces impatience] 9. and she came out of the h'ouse 9.1 (SO SHE CAME OUT OF THE HOUSE AND HE HAD CLOSED THE GARAGE DOORS) 10. to take this c'ar out and go sh´opping 10.1 (BECAUSE [IN ORDER] TO TAKE THE CAR OUT SHE WAS [ABOUT] TO GO SHOPPING) 11. for the first time 11.1 (SO FOR THE FIRST TIME SHE WAS TO TAKE THIS CAR OUT AND GO SHOPPING) 12. so she came out very g'ingerly and opened the door and sat in the car and er began to back very very gently t'aking gr´eat c'are you see 12.1 (SO CARE WHICH WAS GREAT WAS TAKEN) 13. that she didn't do 'anything to this new c'ar and as she backed there was an unpleasant cr'unching sound and she slapped on the br´akes 13.1 (BECAUSE IMPL E.G. SHE FIGURED SHE HAD HIT SOMETHING AND WANTED TO STOP AND TAKE A LOOK) 14. and l'ooked around 14.1 (SO SHE LOOKED AROUND AFTER SLAPPING ON THE BRAKES) 15. and r'´ealised 15.1 (BECAUSE IMPL. E.G. SHE SAW THEM [= THE GATES] 16. that she hadn't opened the g'´ates 16.1 (BECAUSE IMPL E.G. SHE HAD HIT THEM) 17. that let on to the main r´'oad you see 17.1 (SO THE ROAD WAS A MAIN ONE THAT [THE GATES] LET ON TO) [Note: *you see* is dependent on 16-1,at least, to which the next clause is a consequence] 18. and she'd just backed into these very g'´ently 18.1 (BECAUSE IMPL E.G. SHE WAS TAKING GREAT CARE) 19. and sort of touched the b´umper and bent the g'ates slightly (19.1 SO SHE HAD BENT THE GATES SLIGHTLY BECAUSE SHE HAD SORT OF TOUCHED THEM WITH THE BUMPER) 20. and this put her into a bit of a fl'ap so before she could do anything ab'out th´is (20.1 BECAUSE IMPL E.G. THIS WAS SOMETHING THAT SHE HAD TO DO SOMETHING ABOUT) 21.she had to pull f'orward in order to - er - o'pen the g´ates (BECAUSE IMPL E.G. THE GATES OPENED INWARDS) so she took the car out of rev'erse put it into first gear (21.1 SO SHE TOOK THE CAR OUT OF REVERSE AND PUT IT INTO FIRST GEAR [IN ORDER TO PULL AWAY FROM]

THE GATES) 22. and pulled forward very g'ently, but unf'´ortunately (22.1 BECAUSE IMPL E.G. SHE HAD ALREADY HAD ONE ACCIDENT) 23. she misjudged the distance to the garage d´oors so that as she pulled f'orward (23.1 THEREFORE AS SHE PULLED FORWARD BECAUSE SHE MISJUDGED THE DISTANCE TO THE GARAGE DOORS) 24. she r´an into the garage doors - thump (24.1 BECAUSE IMPL E.G. SHE WASN'T THINKING ABOUT THE DISTANCE TO THE GARAGE DOORS) 25. and smashed in the front b'umper of the c´ar (25.1 BECAUSE IMPL E.G. "THUMP" IS A HARD KNOCK FOR AN ALREADY SLIGHTLY BENT BUMPER) 26. and bent the garage d´'oors (26.1 SO THE DOORS WERE THE GARAGE'S [cf the apparently unnecessary mention earlier in 8. of the garage doors being closed and cf note at that point]) 27. so that she st'opped in time you see [Note: it appears that "in time" means "before the car re-entered the garage by breaking through the doors". I suggest that "you see" can be better interpreted if we assume that the husband's closing of the garage doors is intended to exclude his wife from the garage. One possible inference is that "the garage" is a male domain, as "shopping" is a female domain. This is quite speculative but not implausible] and by th'is st´age she was getting into a bit of a flutter (27.1 BECAUSE IMPL E.G. BY NOW SHE HAD DONE TWO PIECES OF DAMAGE) 28. so she got out of the c´ar shaking like a l´eaf went beh'ind (28.1 SO SHE WENT BEHIND THE CAR AFTER SHE GOT OUT OF IT SHAKING LIKE A LEAF) 29. the c´ar (BECAUSE IMPL E.G. THE WAY WAS NOW CLEAR) 29. and opened the gates that let on to the main r'´oad (29.1 BECAUSE IMPL E.G. SHE INTENDED TO BACK OUT) 30. and then she was det'ermined not to be def'eated by this state of aff´airs (30.1 BECAUSE IMPL E.G. THE CAR WAS STILL DRIVABLE ALTHOUGH SHE WAS VERY NERVOUS) 31. which was pretty t´errifying got into the c´ar and started the ´engine looked through the back w´indow very very càrefully (31.1 SO IT WAS A VERY VERY CAREFUL LOOK THROUGH THE BACK WINDOW [AFTER STARTING THE ENGINE OF THE CAR IN THIS TERRIFYING STATE OF AFFAIRS]) 32. and backed ´out with the utmost de'liberation (32.1 SO IT WAS WITH THE UTMOST DELIBERATION THAT SHE BACKED OUT) 33. into the main r'´oad (33.1 BECAUSE IMPL E.G. THE ROAD WAS A MAIN ONE) 34. and managed it absolutely p'erfectly but the only trouble w'´as (34.1 IMPL E.G. BECAUSE THERE WAS [AFTER ALL] SOME TROUBLE) 35. that she'd left the dr´'iving side door (35.1 SO THE DRIVING SIDE DOOR WAS WHAT SHE'D LEFT [= FORGOTTEN]) 36. 'open and had forgotten to cl´ose it (36.1 BECAUSE IMPL E.G. SHE WAS CONCENTRATING ON TAKING THE CAR OUT ON TO THE MAIN ROAD [THROUGH THE GATE WHICH BY CONTRAST SHE HAD EARLIER FORGOTTEN TO OPEN]) 37. so that as she backed ´out through the g´ates into the main r´oad she tore off the door - apparently at wh'ich st´age (37.1 BECAUSE IMPL E.G. SHE HAD REACHED A CERTAIN STAGE IN THE SERIES OF ACCIDENTS) 38. she just coll´'apsed (38.1 SO COLLAPSE WAS JUST WHAT SHE DID) 39. and went into a state of hyst´'eria (39.1 SO HYSTERIA WAS THE STATE SHE WENT INTO) < òh God I though you were going to say she was going to hit the m'ilkman or something > 40. no n´'o (40.1 SO NOT THAT) < h'm t oh bl'imey >

References

Blakemore D. 1992 *Understanding Utterances* Oxford: Blackwell.

Brazil D. 1975. *Discourse Intonation I and II.* Birmingham: English Language Research (Discourse Analysis Monographs nos. 1 and 2)

Couper-Kuhlen E. 1986. *An Introduction to English Prosody.* London: Edward Arnold.

Crystal D. 1969. *Prosodic Systems and Intonation in English. Cambridge: University Press.*

Crystal D. and Davy D. 1975. *Advanced Conversational English.* Harlow: Longman.

Cutler A. 1977. The context-dependence of "intonational meanings". *Papers from the 13the Regional Meeting, Chicago Linguistic Society,* 104-115.

Fairclough N. 1989. *Language and Power.* Harlow: Longman.

House D. *Tonal Perception and Speech.* Lund: University Press (Travaux de l'Institut de Linguistique de Lund nr. 24).

Sag I. and Liberman M. 1975. The intonational disambiguation of indirect speech acts. *Papers from the llth Regional Meeting, Chicago Linguistic Society,* 487-497.

Sperber D and Wilson D. 1986. *Relevance.* Oxford: Blackwell